

IN THE CLAIMS

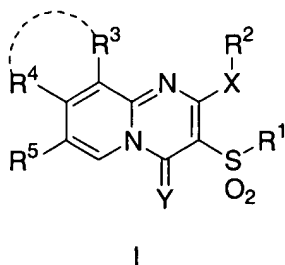
Claims 1-7 remain in this application.

Please cancel claim 8.

In claim 9, please delete "The method of claim 8" and insert thereof – -A method of treating a disorder responsive to antagonism of the 5-HT₆ receptor, in a mammal in need of such treatment, comprising administering to the mammal a therapeutically effective amount of a compound as defined in claim 1. – -

In claim 10, please delete "for treating a disorder responsive to antagonism of the 5-HT₆ receptor".

1. (Original) A compound of Formula I or a nontoxic pharmaceutically acceptable salt or solvate thereof,



wherein:

R¹ is naphthyl or phenyl, said phenyl optionally substituted with one to three substituents each independently selected from the group consisting of halogen, C₁₋₄ alkyl, and trifluoromethoxy;

R² is 5-methylpyridin-2-yl or C₁₋₄ alkyl, said C₁₋₄ alkyl optionally substituted with hydroxy;

R³ is hydrogen, halogen, C₁₋₄ alkyl, or benzyloxy;

R⁴ is hydrogen or C₁₋₄ alkyl;

the dashed line, taken with R³ and R⁴ together, optionally forms a 5 to 6 member aromatic ring structure having zero to 2 heteroatoms;

R⁵ is hydrogen, halogen, C₁₋₄ alkyl, benzyl, or C(O)R⁸;

X is NR⁶, O, or S(O)_m;

Y is NR⁷ or O;

m is 0, 1 or 2;

R⁶ is hydrogen or C₁₋₄ alkyl;

R⁷ is hydrogen, C₁₋₄ alkyl, or C(O)C₁₋₄alkyl; and

R⁸ is C₁₋₄ alkoxy, amino, (C₁₋₄ alkyl)amino, di(C₁₋₄ alkyl)amino, or hydroxy.

2. (Original) The compound of claim 1 wherein X is S; and Y is NR⁷.
3. (Original) The compound of claim 1 wherein X and Y are NH.
4. (Original) The compound of claim 1 wherein X is O; and Y is NH.

5. (Original) The compound of claim 1 wherein X is SO₂; and Y is NH.
6. (Original) The compound of claim 1 wherein X is S; and Y is O.
7. (Original) The compound of claim 1 selected from the group consisting of:
N-(3-benzenesulfonyl-4-imino-4H-pyrido[1,2-a]pyrimidin-2-yl)methylamine;
3-benzenesulfonyl-7-methyl-2-methylsulfanyl-pyrido[1,2-a]pyrimidin-4-ylideneamine;
N-(3-benzenesulfonyl-4-imino-4H-pyrido[1,2-a]pyrimidin-2-yl)ethylamine;
3-benzenesulfonyl-2-ethoxy-pyrido[1,2-a]pyrimidin-4-ylideneamine;
3-benzenesulfonyl-7-bromo-9-methyl-2-methylsulfanyl-pyrido[1,2-a] pyrimidin-4-ylideneamine;
3-benzenesulfonyl-9-bromo-7-methyl-2-methylsulfanyl-pyrido[1,2-a] pyrimidin-4-ylideneamine;
3-(3,4-dichloro-benzenesulfonyl)-2-methylsulfanyl-pyrido[1,2-a]pyrimidin-4-ylideneamine;
N-(3-benzenesulfonyl-2-methylsulfanyl-pyrido[1,2-a]pyrimidin-4-ylidene)methylamine;
3-(2-chloro-benzenesulfonyl)-2-methylsulfanyl-pyrido[1,2-a]pyrimidin-4-ylideneamine;
3-benzenesulfonyl-2-methylsulfanyl-pyrido[1,2-a]pyrimidin-4-ylideneamine;
3-(4-fluoro-benzenesulfonyl)-2-methylsulfanyl-pyrido[1,2-a]pyrimidin-4-ylideneamine;
2-(3-benzenesulfonyl-4-imino-4H-pyrido[1,2-a]pyrimidin-2-ylamino)ethanol;
3-benzenesulfonyl-2-methanesulfinyl-pyrido[1,2-a]pyrimidin-4-ylideneamine;
3-benzenesulfonyl-7-chloro-2-methylsulfanyl-pyrido[1,2-a]pyrimidin-4-ylideneamine;
3-(4-chloro-benzenesulfonyl)-2-methylsulfanyl-pyrido[1,2-a]pyrimidin-4-ylideneamine;
3-benzenesulfonyl-7-fluoro-2-methylsulfanyl-pyrido[1,2-a]pyrimidin-4-ylideneamine;
3-benzenesulfonyl-9-methyl-2-methylsulfanyl-pyrido[1,2-a]pyrimidin-4-ylideneamine;
3-benzenesulfonyl-9-benzyloxy-2-methylsulfanyl-pyrido[1,2-a]pyrimidin-4-ylideneamine;
3-benzenesulfonyl-8-methyl-2-methylsulfanyl-pyrido[1,2-a]pyrimidin-4-ylideneamine;
3-benzenesulfonyl-7-bromo-2-methylsulfanyl-pyrido[1,2-a]pyrimidin-4-ylideneamine;
2-methylsulfanyl-3-(4-trifluoromethoxy-benzenesulfonyl)-pyrido[1,2-a]pyrimidin-4-ylideneamine;

3-benzenesulfonyl-4-imino-2-methylsulfanyl-4H-pyrido[1,2-a]pyrimidine-7-carboxylic acid methyl ester;
3-benzenesulfonyl-2-methylsulfanyl-pyrimido[2,1-a]isoquinolin-4-ylideneamine;
3-(4-chloro-2,5-dimethyl-benzenesulfonyl)-2-methylsulfanyl-pyrido[1,2-a] pyrimidin-4-ylideneamine;
3-benzenesulfonyl-2-methylsulfanyl-pyrido[1,2-a]pyrimidin-4-one;
7-benzenesulfonyl-6-methylsulfanyl-4,5,8a-triaza-phenanthren-8-ylideneamine;
2-methylsulfanyl-3-(naphthalene-2-sulfonyl)-pyrido[1,2-a]pyrimidin-4-ylideneamine;
3-benzenesulfonyl-7-benzyl-9-methyl-2-methylsulfanyl-pyrido[1,2-a] pyrimidin-4-ylideneamine;
(3-benzenesulfonyl-4-imino-7-methyl-4H-pyrido[1,2-a]pyrimidin-2-yl)-(5-methyl-pyridin-2-yl)amine;
3-(4-*tert*-butyl-benzenesulfonyl)-2-methylsulfanyl-pyrido[1,2-a]pyrimidin-4-ylideneamine;
3-benzenesulfonyl-2-methylsulfanyl-8-propyl-pyrido[1,2-a]pyrimidin-4-ylideneamine;
N-(3-benzenesulfonyl-2-methylsulfanyl-pyrido[1,2-a]pyrimidin-4-ylidene)acetamide;
3-benzenesulfonyl-4-imino-2-methylsulfanyl-4H-pyrido[1,2-a]pyrimidine-7-carboxylic acid amide; and
3-benzenesulfonyl-8-ethyl-2-methylsulfanyl-pyrido[1,2-a]pyrimidin-4-ylideneamine; or a nontoxic pharmaceutically acceptable salt thereof.

8. (Canceled).

9. (Currently amended) ~~The method of claim 8~~ A method of treating a disorder responsive to antagonism of the 5-HT₆ receptor, in a mammal in need of such treatment, comprising administering to the administering to the mammal a therapeutically effective amount of a compound of claim 1 wherein said disorder is psychoses, depression, neurological disorders, memory disorders, cognition enhancement, Parkinson's disease ,and Alzheimer's disease.

10. (Currently amended) A pharmaceutical composition ~~for treating a disorder responsive to antagonism of the 5-HT₆ receptor~~ comprising a therapeutically effective amount of a compound as defined in claim 1 and a pharmaceutically acceptable carrier, adjuvant or diluent.